IN THE CLAIMS:

A listing of the status of all claims 1-20 in the present patent application is provided below.

1 (**Currently Amended**). A method for improving performance of a signal transmitted via a conductive circuit trace of a circuit board, the method comprising the step of:

providing a layer of the circuit board having the conductive circuit trace on a surface thereof; and

reducing a surface roughness of at least one surface of the conductive circuit trace on the surface of the circuit board layer using a smoothing technique so as to improve performance of a signal transmitted via the conductive circuit trace, wherein the surface roughness of the at least one surface is reduced to no more than 20 microinches root-mean-squared (RMS), wherein the smoothing technique comprises at least one of a lateral smoothing technique and a transverse smoothing technique, the lateral smoothing technique reducing surface roughness in a direction along the conductive circuit trace and the transverse smoothing technique reducing surface roughness in a direction across the conductive circuit trace.

2 (Previously Presented). The method as in Claim 1, wherein the

step of reducing the surface roughness includes one of a group consisting of: electropolishing the at least one surface; chemical polishing the at least one surface; electrochemical polishing the at least one surface; chemical-mechanical polishing the at least one surface; mechanical polishing the at least one surface; electroplating the at least one surface; and vacuum depositing conductive material on the at least one surface.

3 (Cancelled).

4 (Original). The method as in Claim 1, wherein the surface roughness of the at least one surface is reduced to no more than 10 microinches root-mean-squared (RMS).

5 (Original). The method as in Claim 1, wherein the surface roughness of the at least one surface is reduced to no more than 5 microinches root-mean-squared (RMS).

6 (Original). The method as in Claim 1, wherein the at least one surface of the conductive circuit trace includes one of a group consisting of: a surface parallel and distal to a surface of the circuit board; a surface parallel and proximal to the

surface of the circuit board; and a surface perpendicular to the surface of the circuit board.

7-18 (Cancelled).

19 (Previously Presented). The method as in Claim 1, wherein the conductive circuit trace is formed on the surface of the circuit board layer.

20 (Previously Presented). The method as in Claim 1, wherein the conductive circuit trace is affixed to the surface of the circuit board layer.